**Professional**

* **Skill:** Express information effectively to technical and non-technical audiences  
  **Skill Level:** Proficient  
  **Evidence:** Throughout the course, I developed the ability to explain machine learning concepts—such as supervised learning, overfitting, and neural networks—to both technical peers and those unfamiliar with AI. Reflecting critically, I became more confident in adapting complex information to different audiences.
* **Skill:** Create documents to aid your communication  
  **Skill Level:** Trained  
  **Evidence:** I wrote detailed reports and summaries of ML experiments, using visuals and statistical charts to support my analysis. These documents enhanced my ability to communicate findings in structured, professional formats.

**Commercial Awareness**

* **Skill:** Keep current with tools of the industry  
  **Skill Level:** Proficient  
  **Evidence:** I engaged with cutting-edge tools like Scikit-learn, TensorFlow, and Jupyter Notebook. I also stayed updated on AI trends and ethical issues contributing to my practical and theoretical industry knowledge.
* **Skill:** Seek opportunities to improve and share knowledge of tools  
  **Skill Level:** Expert  
  **Evidence:** I often helped peers understand ML models and shared useful resources and coding tricks. My willingness to collaborate and exchange tools made me a go-to support figure in practical labs.
* **Skill:** Participate in scientific and professional organisations  
  **Skill Level:** Aware  
  **Evidence:** I followed relevant ML communities and participated in forums and webinars, helping me stay connected with professional discourse in data science.
* **Skill:** Emphasise quality, customer satisfaction, and fair policies  
  **Skill Level:** Trained  
  **Evidence:** During projects, I ensured fairness in model predictions by testing for bias and improving data balance, demonstrating ethical awareness in applying ML to real-world problems.
* **Skill:** Demonstrate familiarity with codes of conduct in computing  
  **Skill Level:** Proficient  
  **Evidence:** I studied ethical ML applications and followed academic guidelines to ensure transparency and compliance, particularly when working with sensitive data.

**Subject Understanding, Research, Critical Thinking, Time Management**

* **Skill:** Critically analyse complex ideas in Computer Science  
  **Skill Level:** Expert  
  **Evidence:** I compared and evaluated algorithms like decision trees, SVMs, and deep learning models. I used critical metrics such as precision, recall, and AUC to assess performance, reflecting on their strengths and limitations.
* **Skill:** Recognise inconsistencies and search for additional information  
  **Skill Level:** Proficient  
  **Evidence:** When models failed or underperformed, I analyzed feature relevance and model parameters, consulted external research, and applied corrections.
* **Skill:** Explore complex real-world problems  
  **Skill Level:** Proficient  
  **Evidence:** I applied ML methods to real-world datasets (e.g., medical diagnosis and social sentiment analysis), integrating theoretical knowledge with practical applications.

**Legal and Ethical**

* **Skill:** Comply with laws  
  **Skill Level:** Trained  
  **Evidence:** I followed data protection standards when handling datasets and ensured that any public data used was anonymised and ethically sourced.
* **Skill:** Maintain privacy and confidentiality  
  **Skill Level:** Trained  
  **Evidence:** During ML labs, I practiced responsible data handling, especially with user-based datasets, protecting sensitive information.

**Social (including Teamwork)**

* **Skill:** Act in the best interest of the community  
  **Skill Level:** Aware  
  **Evidence:** I recognized the societal impact of AI and emphasised fairness and inclusivity when evaluating ML systems and their outcomes.
* **Skill:** Collaborate effectively in diverse teams  
  **Skill Level:** Trained  
  **Evidence:** Group projects taught me to coordinate tasks, respect differences in opinion, and combine diverse ideas into cohesive ML models.
* **Skill:** Meeting team objectives using teamwork  
  **Skill Level:** Trained  
  **Evidence:** I contributed effectively to shared goals in lab settings, maintaining team accountability and communication.
* **Skill:** Demonstrate skills in leadership and team building  
  **Skill Level:** Trained  
  **Evidence:** I often stepped in to clarify coding issues and led discussions on improving model performance, developing informal leadership skills.
* **Skill:** Give and receive constructive feedback  
  **Skill Level:** Proficient  
  **Evidence:** Peer review was integral to our process, and I improved by incorporating critiques while also guiding others to refine their solutions.

**Creativity, Problem Solving, Decision Making**

* **Skill:** Create and deliver strategies for sustainability  
  **Skill Level:** Aware  
  **Evidence:** I examined AI sustainability by looking into energy use in model training and designing efficient architectures where possible.
* **Skill:** Make decisions using multiple information sources  
  **Skill Level:** Proficient  
  **Evidence:** I triangulated insights from performance metrics, domain literature, and peer input to make model adjustments.

**Technical (Data Science)**

* **Skill:** Technical skills relevant to degree  
  **Skill Level:** Expert  
  **Evidence:** I confidently used Python, Scikit-learn, and Pandas for ML implementation. I also explored TensorFlow and Keras for neural networks, applying them to large datasets.
* **Skill:** SQL  
  **Skill Level:** Trained  
  **Evidence:** Used SQL for data extraction and initial filtering from larger databases before ML analysis.
* **Skill:** Python Programming  
  **Skill Level:** Expert  
  **Evidence:** I built full ML pipelines using Python, from preprocessing to model tuning and evaluation.
* **Skill:** Java  
  **Skill Level:** Aware  
  **Evidence:** While the course focused on Python, I reviewed Java implementations of ML concepts to broaden my understanding.
* **Skill:** noSQL  
  **Skill Level:** Aware  
  **Evidence:** I explored noSQL databases theoretically and noted their relevance in handling unstructured data for ML.
* **Skill:** Scripting Language (Python)  
  **Skill Level:** Proficient  
  **Evidence:** I wrote reusable scripts for model automation and batch testing.
* **Skill:** Statistical Language (R)  
  **Skill Level:** Aware  
  **Evidence:** I reviewed R-based statistical methods to compare with Python-based approaches.
* **Skill:** Git repositories  
  **Skill Level:** Trained  
  **Evidence:** I maintained version control on ML projects using GitHub.
* **Skill:** Use of conferencing technologies and Moodle  
  **Skill Level:** Trained  
  **Evidence:** I presented findings and communicated with peers via Zoom and Moodle forums.
* **Skill:** Word processing and spreadsheets  
  **Skill Level:** Proficient  
  **Evidence:** Used Excel for preliminary data analysis and Word for structured reporting.
* **Skill:** Effective use of e-library resources  
  **Skill Level:** Proficient  
  **Evidence:** Accessed academic databases to research ML theory and real-world applications.

**Subject Application**

* **Skill:** Take into account other people’s perspectives  
  **Skill Level:** Proficient  
  **Evidence:** Engaged with diverse viewpoints when interpreting model biases and applications.
* **Skill:** Work constructively with differences in viewpoints  
  **Skill Level:** Trained  
  **Evidence:** Respected diverse technical approaches and opinions during group coding sessions.
* **Skill:** Participate as an informed citizen  
  **Skill Level:** Aware  
  **Evidence:** Reflected on AI's broader impact on society, advocating responsible use of technology.
* **Skill:** Clarify personal values and ethics  
  **Skill Level:** Trained  
  **Evidence:** Reflected on fairness, transparency, and accountability in model-building, aligning with ethical standards.